dence of their ever becoming detached from the parent plant to act in any reproductive function.

The fruit of the form varies; many plants have normal full-grown carpels, while in others they are small, half-developed, and resemble those of *S. Carsonii* Durand.

It might also be well to add that the stem is much more fragile than in the common forms, and it is so brittle especially at the base that it was difficult, even in the soft mud of the tidal flats, to pull up the plants by the roots without breaking them at that point.

At a few places on the estuary were clumps of *S. suave* which grew so that the individuals were partially supported by the dense vegetation, and these tended less to take on the form with fascicled leaves, and showed a gradual transition into the typical form of the species. But whether or not the development of this form has any direct relation with the degree of recumbence cannot be stated with any degree of certainty.

Sium Carsonii Durand is apparently merely a weak aquatic state of *S. suave*, and should be considered as a form, likely to occur anywhere throughout the range of the species as a response to submergence.

SIUM SUAVE Walt. forma **Carsonii** (Durand), comb. nov. *S. Carsonii* Durand in Gray, Man. ed. 5, 196 (1867). *S. cicutaefolium* Schrank var. *Carsonii* (Durand) Eames, RHODORA, xviii. 239 (1916).

HARVARD UNIVERSITY.

REPORTS ON THE FLORA OF THE BOSTON DISTRICT,—XXXIV.

[There is an insignificant specimen of *Mentzelia* in the Club Herbarium collected in Boston by C. E. Perkins in 1882. There are also records of *Opuntia vulgaris* Mill. by John Robinson, Fl. Essex Co., 55, 1880, but apparently the plants were introduced and not persistent.]

THYMELEACEAE.

DAPHNE.

D. MEZEREUM L. Spontaneous or persistent at Ipswich, Salem, and Medford.

DIRCA.

D. palustris L. Open woods, Salisbury (*J. H. Sears & Edward Moulton*, May, 1887); Newburyport (*Edward Moulton*, May 20, 1889). Specimens in herb. Peabody Acad. Sci.

LYTHRACEAE.

CUPHEA.

C. PROCUMBENS Cav. One plant in high wet pasture, Andover (*M. E. Gutterson*, Sept. 22, 1901). Specimens in herb. Gray and Peabody Acad. Sci. See RHODORA iv. 247–8, 1902. A species of southern Mexico.

DECODON.

D. verticillatus (L.) Ell. Shallow water, frequent near the coast.

D. verticillatus (L.) Ell., var. **laevigatus** T. & G. See RHODORA xix. 154–5, 1917. Shallow water, rather common.

LYTHRUM.

L. ALATUM Pursh. A fugitive plant at Melrose, Chelmsford, Lexington, Cambridge, Boston and Needham.

L. Hyssopifolia L. Edges of salt-marshes and sand dune hollows all along the coast.

L. SALICARIA L. Introduced in wool-waste at many places; especially abundant along the Merrimac River and between Ashland and Framingham.

L. SALICARIA L., var. TOMENTOSUM (Mill.) DC. Georgetown, Danvers, Chelmsford, Franklin.

L. VIRGATUM L. Casual in vacant lots at S. Boston (*C. H. Knowlton & W. P. Rich*, July 29, 1908); abundant in marshes by mill-stream below Canton Junction (*C. H. Knowlton*, Sept. 27, 1908); Sharon (*S. F. Poole*, September, 1905); Dorchester (*J. R. Churchill*, Sept. 2, 1916).

ROTALA.

R. ramosior (L.) Koehne. Sandy and gravelly shores of ponds; Danvers, Woburn, Winchester, Waltham, Sudbury, Wellesley, Needham, Sharon, Wrentham.

MELASTOMACEAE.

RHEXIA.

R. virginica L. Meadows, common throughout, except perhaps in some of the western towns.

ONAGRACEAE.

CIRCAEA.

C. alpina L. Frequent in northern Massachusetts; southward rare, mostly in *Chamaecyparis* swamps.

C. latifolia Hill. See RHODORA xvii. 223, 1915. Moist woods, common.

CLARKIA.

C. PULCHELLA Pursh. One plant near wool-waste dust, Arlington Mills, Lawrence (*John A. Collins, Jr.*, June 14, 1900). See RHODORA iii. 92, 1901.

C. RHOMBOIDEA Dougl. Wool-waste, N. Chelmsford (*W. P. Alcott*, 1878). Specimen in herb. Peabody Acad. Sci. Adventive from Pacific coast.

EPILOBIUM.

E. angustifolium L. Dry soil and clearings; common, but not so abundant as farther north.

E. angustifolium L. forma **albiflorum** (Dumort.) Haussk. Rocky bank, Stoneham (*W. P. Rich*, July 23, 1894). Specimen in herb. N. E. Botanical Club.

E. coloratum Muhl. Wet places, common throughout.

E. densum Raf. Swamps, common.

E. glandulosum Lehm., var. **adenocaulon** (Haussk.) Fernald. See RHODORA xx. 35, 1918. Wet places, frequent.

E. HIRSUTUM L. Waste places, rare; Salem, Winthrop, Cambridge, Roxbury, Boston.

E. molle Torr. Meadows in Essex County only, at Newburyport, Haverhill, Wenham, Danvers, and Rowley.

E. palustre L. Cedar Pond, Peabody (*J. H. Sears*, July 30, 1886; *E. Faxon*, Aug. 25, 1891); Wilmington, dark *Chamaecyparis* swamp near Lowell Junction (*A. S. Pease*, Aug. 7, Oct. 3, 1903).

E. palustre L. var. **monticola** Haussk. Bogs and wet meadows, rare; Lexington, Melrose, Medford, W. Roxbury, Milton, Easton.

GAURA.

G. BIENNIS L. Rubbish heaps, Cambridge (*W. Deane*, Aug. 5, 1886; *M. L. Fernald*, August, 1891); Lexington (*W. B. Brown, Jr.*, Sept. 11, 1896).

LUDVIGIA.

L. alternifolia L. Moist soil, occasional.

L. palustris (L.) Ell. Ditches and wet ground, common throughout.

L. polycarpa Short & Peter. Wet shores of Round and Winter Ponds, Winchester (*Wm. Boott*, October, 1885; many other collections to date).

L. sphaerocarpa Ell. Marshes along Concord River; also Waltham (*C. E. Perkins*, Aug. 4, 1881).

OENOTHERA.

O. biennis L. Rich soil and waste places, common.

O. BISTORTA Nutt. Wool-waste, N. Chelmsford (*W. P. Alcott*, June 23, 1879). Specimen in herb. N. E. Botanical Club. A Californian plant.

O. GRANDIFLORA Ait. Escaped or persistent in Essex County and at Malden, Lexington and Dorchester.

O. hybrida Michx., var. **ambigua** Nutt. (*O. fruticosa* L.) See RHODORA xx. 51–52, 1918. Single specimens have been reported from Beverly and Framingham; Cambridge (*E. Tuckerman, Jr.*, no date.).

O. LACINIATA Hill. An occasional weed, spontaneous from further west.

O. Oakesiana Robbins. Cohasset (*N. T. Kidder*, July 21, 1886). Specimen in herb. Gray.

O. muricata L. Sandy soils and waste places, common and variable.

O. cruciata Nutt. Dry soil, rare; Rockport, Wenham, Chelmsford, Woburn, Lincoln.

O. pratensis (Small) Robinson. Dry soil, rare (*E. R. Farrar*,—1891); Needham (*T. O. Fuller*, June 23, 1889); Walpole (*C. H. Knowlton*, June 27, 1909).

O. pumila L. Fields, very common throughout.

HYDROCARYACEAE.

TRAPA.

T. NATANS L. In Concord and Sudbury Rivers at Concord and Bedford, introduced by Minot Pratt; Fresh Pond, Cambridge (*Thomas Morong*, Aug. 11, 1879); Belmont (*C. E. Perkins*, September, 1882); reported at Malden and Medford according to Dame & Collins, Fl. Middlesex Co., 37, 1888.

HALORAGIDACEAE

MYRIOPHYLLUM.

M. alterniflorum DC. Westford (*Miss E. F. Fletcher*, Sept. 2, 1902); Mystic Pond (*Wm. Boott*, Aug. 26, 1853; Aug. 6, 1865); Sprague's Pond, Readville (*C. E. Faxon*, no date); by spring in mud, W. Quincy (*W. Deane*, June 10, 1894). Southern limits of the species.

M. exalbescens Fernald. (*M. spicatum* of Gray's Manual, not L.) See RHODORA xxi. 120–122, 1919. Rivers and ponds, occasional north of Boston.

M. humile (Raf.) Morong. Wet shores in mud and sand, frequent.

M. humile (Raf.) Morong. forma **capillaceum** (Torr.) Fernald. Submersed in water of ponds, frequent.

M. humile (Raf.) Morong, forma **natans** (DC.) Fernald. In shallow water, occasional.

M. tenellum Bigel. Ponds, occasional.

PROSERPINACA.

P. intermedia Mackenzie. See TORREYA x. 250, 1910. Meadow border, Lake Massapoag, Sharon (*E. F. Williams & W. P. Rich*, Sept. 10, 1899). Specimen in herb. N. E. Botanical Club.

P. palustris L. Swamps and ditches, common throughout.

P. pectinata Lam. Tophet swamp, Carlisle (*C. H. Knowlton*, Sept. 6, 1902); ditch between Hammond pond and Chestnut Hill Station (*W. Boott*, June, 1855); meadows by river, Blue Hill Reservation (*N. T. Kidder*, Aug. 12, 1894); Hingham, according to T. T. Bouvé, Botany of Hingham, in History of Hingham, i. pt. 1, 105, 1893.

ARALIACEAE

ARALIA.

A. hispida Vent. Dry sandy soil, especially in clearings, common.

A. nudicaulis L. Dry woods, very common throughout.

A. nudicaulis L. var. **elongata** Nash. Needham (*K. M. Wiegand*). See RHODORA xii. 39, 1910.

A. racemosa L. Rich woods, occasional, especiallyno rthward.

PANAX

P. trifolium L. Rich moist woods, frequent throughout.

C. H. KNOWLTON, WALTER DEANE } *Committee on Local Flora.*

A FORM OF ILEX OPACA.—That the North American holly (*Ilex opaca*) sometimes occurs in a form with entire or nearly entire leaves has long been known and occasionally commented upon. No one, however, appears to have given this form even a horticultural name. This is perhaps partly because our species has been much less cultivated than the European *I. Aquifolium* and its variants are correspondingly less well known; and partly because of an apparently prevailing impression that the entire leaves occur mainly on the upper branches of otherwise typical trees.[1] Similar statements have been made in regard to the European holly and have given rise to a pretty theory that leaves within reach of grazing cattle bear spines, but that when they attain a safe altitude they divest themselves of this unfriendly armament.

Dr. L. C. Jones, of Falmouth, Mass., has recently been investigating the form of our holly with sub-entire leaves, as it occurs in his region, and has kindly communicated notes and specimens to the Gray Herbarium. He finds that in two well-grown and mature trees (15–20 feet tall and 3–4 inches in diameter at the base) which he observed among some thirty individuals of the ordinary type, the foliage is of uniform character throughout. Some of the leaves are quite entire, others have a very few, irregularly scattered spiny teeth;[2] both kinds grow together on the same branches in all parts of the tree. Dr. Jones notes further that "the leaves of these two trees appeared thicker and more opaque than those on the trees of the common variety and the effect in the mass was to give them a duller and darker shade of green, as if a little black or dark brown had been stirred into the pigment."

Examination of fruiting specimens of the Massachusetts plants and of like flowering ones from the South discloses no distinctive characters other than those of the leaves. Entire-leaved forms of

[1] See Sargent, Sylva N. Am. i. 107, and Mellichamp, Bull. Torr. Bot. Club viii. 112, whom Sargent quotes.

[2] The usual form has 3–7 spiny teeth rather regularly disposed on each side of the leaf.